Java Collections Exercise Programs

**Q1. Write a program to traverse (or iterate) ArrayList?**

**Q2 Write a program to convert List to Array.**  
List for e.g ArrayList or LinkedList can be converted to Array using toArray() method.  
  
**Q3 Write a program to traverse(or iterate) HashSet?**   
You can traverse the HashSet using iterator or without using iterator as well.  
  
**Q4 Given an element write a program to check if element(value) exists in ArrayList?**

**Q5 Given an element write a program to check if element exists in HashSet?**

**Q6 Write a program to initialize a HashMap in java ?**

**Q7 Write a program to initialize an ArrayList in java?**

**Q8  Write a program to convert Array to List?**   
Array can be converted to list using Arrays.asList() method.  
  
**Q9 Write a program to find the length of the ArrayList?**   
Length of the ArrayList can be found using size() method.  
  
**Q10 Write a program to add elements to the HashMap given the key and value data type is String?**

**Q11 Write a program to initialize a HashSet in java?**

**Q12 Write a program to add elements to ArrayList ?**

**Q13 Write a program to add elements to HashSet?**

**Q14 Write a program to get size of HashMap?**   
You can use the size() method of HashMap class.  
  
**Q15  How to check if HashMap is empty?**   
You can check if HashMap is empty using isEmpty() method.

**Q16 Write a program to iterate the HashMap ?**   
There are many ways to iterate the HashMap.The best way to iterate the HashMap is using iterator.  
  
**Q17 Write a program to sort HashMap by keys ?**   
You can sort HashMap by keys using TreeMap object.  
  
**Q18 Write a program to sort ArrayList using Comparable and Comparator?**   
You can sort ArrayList of Objects using Comparable and Comparator.  
  
**Q19 Write a program to sort ArrayList in descending order?**   
You can sort the ArrayList in descending order using Collections.reverseOrder() method.  
  
**Q20 Write a program to add element at particular index of ArrayList?**   
You can add element at particular index of ArrayList using method add(int index, Object element).

**Q21 Write a program to remove element from specified index of ArrayList?**   
You can remove element at particular index of ArrayList using remove(int index) method.